

Title (en)

APPARATUS AND METHOD FOR GENERATING A TEMPERATURE-DEPENDENT CONTROL SIGNAL

Title (de)

VORRICHTUNG UND VERFAHREN ZUR ERZEUGUNG EINES TEMPERATURABHÄNGIGEN STEUERSIGNALS

Title (fr)

APPAREIL ET PROCÉDÉ PERMETTANT DE GÉNÉRER UN SIGNAL DE COMMANDE DÉPENDANT DE LA TEMPÉRATURE

Publication

**EP 3072236 A4 20170830 (EN)**

Application

**EP 13897754 A 20131122**

Priority

IB 2013002897 W 20131122

Abstract (en)

[origin: WO2015075496A1] A current-to-voltage converter (101) receives a current which varies with temperature according to a selected one of two or more temperature coefficient factors and converts it to a temperature-dependent voltage which may be used as a control signal to varactor in a voltage controlled oscillator, VCO, (109) in order to compensate for temperature-induced frequency drift in the VCO. A feedback arrangement (501, 502) with hysteresis is provided for controlling the selection of the temperature coefficient factor and operates by comparing the temperature-dependent voltage with a reference voltage. The reference voltage may be pre-set and equivalent to a known operating temperature. A switching signal is generated when Vout approaches the reference voltage and in response a control module generates a selection signal for selecting a different temperature coefficient factor. The invention provides multi-slope voltage and current generation in a continuous way and with a wide dynamic range and is particularly useful for controlling VCO's used in short range FMCW radar systems.

IPC 8 full level

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CPC (source: EP US)

**G01K 1/02** (2013.01 - US); **G01K 7/01** (2013.01 - US); **G01K 7/16** (2013.01 - US); **G05F 1/561** (2013.01 - EP US); **G05F 3/30** (2013.01 - EP US); **H03K 3/011** (2013.01 - EP US); **H03K 3/0377** (2013.01 - US); **H03K 5/24** (2013.01 - EP US); **H03L 1/022** (2013.01 - EP US); **H03L 1/023** (2013.01 - US)

Citation (search report)

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Designated contracting state (EPC)

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